Fisheries and Oceans Canada | Pêches et Océans Canada
Science | Sciences
National Capital Region
Canadian Science Advisory Secretariat
Science Response 2014/006

ADVICE REGARDING HARVESTING SEAL PRODUCTS OF HIGH QUALITY FOR HUMAN CONSUMPTION

Context

The Canadian Fish Inspection Act and Regulations prohibit the export (including production of products for export) of fish (including marine mammals) that are tainted, decomposed or unwholesome. Seals that are unhealthy and that present a food safety risk to consumers are considered unwholesome. Therefore, any person involved in the harvest and further processing of seal products is required to apply preventative controls to ensure that edible seal products meet Canadian food safety standards, and are acceptable for human consumption.

Inspection of seal carcasses at sea for the purpose of harvesting products for human consumption involves a number of unique challenges compared to that of domestic animals or terrestrial wildlife. These challenges make it particularly important for harvesters and processors to ensure that food safety preventative controls are consistently applied to all seal carcasses brought onboard vessels. There are limited opportunities to assess live seals in the field during harvest against food safety criteria. However, seal harvesters must try to do this to the best of their ability and avoid harvesting animals that are unacceptable for producing edible products.

The Canadian Food Inspection Agency (CFIA) requested advice from Fisheries and Oceans Canada (DFO) to assist seal harvesters in visually assessing the health of live seals and carcasses at the time of harvest such that only seals suitable for the production of edible products are selected for further processing as human food. A Research Document, Daoust and Stacey (2013), is intended to provide technical information and training to the seal harvesting community for this purpose. Specifically, it addresses the criteria required to assess the health of seals as they are brought onboard sealing vessels and focuses on the initial steps of carcass handling and examination. The present report is intended to provide a general outline of the context, approach used and conclusions of the supporting Research Document (Daoust and Stacey 2013). However, Daoust and Stacey (2013) contains all of the technical information to assist seal harvesters in visually assessing the health of live seals and carcasses at the time of harvest.

This Science Response Report results from the Science Special Response Process of January 31 and October 25, 2013, entitled "Training for sealers on visual assessments of the general health of live seals during the harvest".

Background

Sealing is a long-established tradition in Atlantic Canada and Québec. Although the current market is mainly for pelts, there is a growing interest on the part of the seal harvesting industry to diversify its market access, particularly for export, as some countries have shown a strong interest in other products derived from seals, such as meat and oil, for human consumption. It is important for the sealing industry to develop means of ensuring that products of the highest quality are made available to prospective buyers and consumers. Food safety requirements are administered by the CFIA.

CFIA is responsible for administering the safety requirements for edible seal products. In carrying out this role, CFIA has developed a Code of Practice that sets out the conditions to

ensure that seals harvested for human consumption have been slaughtered, handled and processed in such a way that food safety is not compromised. Processing and export of seal products will be monitored by CFIA inspectors but the logistics of the seal hunt preclude veterinary inspection of harvested carcasses on sealing vessels. However, considering the knowledge of professional sealers with the external and internal appearance of seals, the crew of sealing vessels can be trained to harvest only seals that appear healthy.

Analysis and Response

Daoust and Stacey (2013) systematically covers all aspects, from a veterinary perspective, of the inspection process required to help to ensure that seal products for human consumption are collected only from carcasses of seals that appear healthy. The general principles of carcass handling are covered, including bleeding, pelting, evisceration, and washing.

Assessment of carcasses for disease recognition is the main focus of Daoust and Stacey (2013). The overarching principle is that a seal should not be included in the harvest for human consumption if there is any doubt about its health. Concurrently, there is a need to investigate instances when a disease may have been identified in a seal in the course of harvesting, especially if similar signs of disease keep showing up in different seals, since the results of such investigations may provide important information on the health status of the population at large.

Daoust and Stacey (2013) outlines the general principles involved in assessing the health of seals and handling seal carcasses, from behavioural assessment of the animal through to evisceration of the carcass. Guidance is provided regarding the external and internal evaluation of the animal to help to ensure that only seals that appear healthy are harvested, using photos to show both normal and abnormal features. Some of the more common forms of reaction of the body to infection and disease are also described. An additional section informs those handling seals and seal carcasses about some of the zoonoses (diseases that can be transmitted from animals to humans) that have been reported. Finally, the document includes a glossary of definitions for terms that may not be familiar to many readers.

Seal harvesters are not expected to be able to identify any of the specific diseases described in Daoust and Stacey (2013). The descriptions are intended simply to inform harvesters and to emphasize the importance of proper sanitation during slaughter and carcass processing. In addition, if sealers become ill after a hunt they should notify their physician of the possibility that they may have contracted a disease from seals.

Sources of Uncertainty

Although the information provided in Daoust and Stacey (2013) is based on sound scientific information, the recommended methodologies remain to be tested on a large scale, and further refinements to protocols and procedures may be necessary. In addition, our knowledge of diseases in seals is incomplete, and new diseases may be identified in the future.

Conclusions

The information presented by Daoust and Stacey (2013) provides a simple but detailed overview of methods for field inspection of seals that will help to ensure that only seals that appear healthy are harvested and that seal products are safe for human consumption. It is recommended that these methods be followed under all circumstances when harvesting seal products for human consumption in order to help to ensure consistent and scientifically sound practices that are uniformly applied within the sealing industry. Experienced seal harvesters have knowledge regarding the external and internal appearance of seals, and therefore should be able to quickly recognize seals or carcasses that appear unhealthy.

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Sources of Information

Daoust P-Y and Z Stacey. 2014. Seal harvest for products of optimum quality for human consumption. DFO Can. Sci. Advis. Sec Res. Doc. 2014/009.

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